

DECLARATION AND POWER OF ATTORNEY - PATENT APPLICATION

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated next to our names below; that I verily believe that I am the original, first and sole inventor (if only one inventor is named below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

INDIRECTLY HEATED BUTTON CATHODE
FOR AN ION SOURCE

the specification of which is attached hereto. If not attached hereto,

the specification was filed on _____ as
United States Application Number _____;

and/or

the specification was filed on _____
as PCT International Application Number _____
and was amended under PCT Article 19 on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (six months

for designs) prior to this application, and that no application for patent or inventor's certificate on this invention has been filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns, except as follows.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 (a)-(3) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s) Priority Claimed

(Number)	(Country)	Month/Day/Year Filed	Yes	No
----------	-----------	----------------------	-----	----

All Foreign Applications, if any, for any Patent or Inventor's Certificate Filed More Than 12 Months (6 Months for Designs) Prior To The Filing Date of This Application:

Country	Application No.	Date of Filing	(Month/Date/Year)
---------	-----------------	----------------	-------------------

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the National or PCT International filing date of this application.

(Application Number)	(Filing Date)	(Status- patented, pending, abandoned)
----------------------	---------------	---

Application Number) (Filing Date) (Status-
patented, pending, abandoned)

I hereby appoint as principal attorneys:

ROBERT W. MULCAHY	(Reg. No. 25,436)
LAWRENCE EDELMAN	(Reg. No. 25,226)
MICHAEL B. EINSCHLAG	(Reg. No. 29,301)
RAYMOND KAM-ON KWONG	(Reg. No. 37,165)
PETER J. SGARBOSSA	(Reg. No. 25,610)
MICHAEL L. SHERRARD	(Reg. No. 28,041)
DONALD VERPLANCKEN	(Reg. No. 33,217)

006126 IMPLANT/ORION/LE

LESLIE WEISE	(Reg. No. 36,305)
JAMES C. WILSON	(Reg. No. 35,412)
TERRELL C. BIRCH	(Reg. No. 19,382)
RAYMOND C. STEWART	(Reg. No. 21,066)
JOSEPH A. KOLASCH	(Reg. No. 22,463)
JAMES M. SLATTERY	(Reg. No. 28,380)
BERNARD L. SWEENEY	(Reg. No. 24,448)
MICHAEL K. MUTTER	(Reg. No. 29,680)
CHARLES GORENSTEIN	(Reg. No. 29,271)
GERALD M. MURPHY, JR.	(Reg. No. 28,977)
LEONARD R. SVENSSON	(Reg. No. 30,330)
ANDREW D. MEIKLE	(Reg. No. 32,868)
MARC S. WEINER	(Reg. No. 32,181)
JOE MCKINNEY MUNCY	(Reg. No. 32,334)

to prosecute and transact all business in the Patent and Trademark Office connected with this application and any related United States and International applications. Please direct all communications to:

Robert W. Mulcahy,
Applied Materials, Inc.
Box 450A,
Santa Clara, CA 95052.

Please direct telephone calls to Robert W. Mulcahy at (408) 563 2726.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Given Name	Family Name	Inventor's Signature	Date
Marvin	FARLEY		
Residence		Citizenship	
Massachusetts 01938, U.S.A.		United States of America	
Post Office Address			

Given NameFamily Name Inventor's SignatureDate

Takao SAKASE

Residence

Citizenship

Massachusetts 01969, U.S.A.

United States of America

Post Office Address

27 Green Needle Lane, Rowley, MA 01938,
United States of America.

=====

Given NameFamily Name Inventor's SignatureDate

Shu SATOH

Residence

Citizenship

Massachusetts 01922, U.S.A.

Japan

Post Office Address

11 Larkin Road, Byfield, MA 01922, United States of America.

=====

Given NameFamily Name Inventor's SignatureDate

Geoffrey RYDING

Residence

Citizenship

Massachusetts 01944, U.S.A.

United Kingdom

Post Office Address

30 Masconomo St., Manchester, MA 01944,
United States of America.

=====

Given NameFamily Name Inventor's SignatureDate

Peter ROSE

Residence

Citizenship

Massachusetts 01966, U.S.A.

United States of America

2025 RELEASE

89 Phillips Avenue, Rockport, MA 01966
United States of America.

: 150356: REBC: YG: READDOCS

THE UNIVERSITY OF CHICAGO